

# Project Information Overview



In April 2011, the TVA board approved clean air agreements with the Environmental Protection Agency, four states and three environmental groups that support TVA's vision for low-cost and cleaner energy. As part of the agreements, TVA identified additional environmental projects that support cleaner air across the region. TVA chose projects to align with its vision for a cleaner energy future.

### Overall Benefits for the TVA Region

- TVA has identified cost-effective projects to achieve optimum benefits for the people of the TVA region.
- These projects will provide further emission reductions in certain greenhouse gases and other pollutants.
- The projects will further aid economic stimulation within the TVA region. TVA will strive to coordinate with distributors and other parties involved to implement the projects effectively and achieve the best results possible.
- These projects support TVA's vision for becoming one of the leaders in low-cost and cleaner energy.
- Certain projects will be implemented in the near term while others are further out:
  - Some projects require substantial lead time for planning and implementation; for these projects, benefits will not be realized until the end of those projects' planning period.

### Why These Projects?

- Projects were chosen to align closely with other planned TVA projects in order to increase the environmental benefits and cost-effectiveness of the mitigation projects.
- TVA examined the costs of the mitigation projects in several ways: alignment with TVA's vision for lower cost and clean energy, potential impacts to ratepayers, long-range planning budgets, implementation resources, and consistency with the 2011 Integrated Resource Plan.
- There are several opportunities for TVA and distributors to match funding, such as with states in the TVA region, other agencies, and private corporations.

### Project Dollars

TVA is obligated to spend no less than \$290 million on environmental mitigation projects to meet the requirements of the Clean Air Agreement. These expenditures must occur within five years of EPA's approval of the project proposals submitted by TVA. TVA will also provide \$60 million to the states of Alabama, Kentucky, North Carolina and Tennessee for state environmental mitigation projects.

### Environmental Projects will be implemented over 5 years from the date of their approval.

- Energy Efficiency Projects (invest \$240 million):
  - Tennessee Valley Smart Energy Communities
  - Whole Home Efficiency Upgrades
  - Commercial Custom & Prescriptive Efficiency Assistance
  - Industrial Custom & Prescriptive Efficiency Assistance
  - Voltage Optimization (Distributor Loss Reduction)
- Clean Diesel Retrofit & Electric Vehicle Projects (invest \$8 million). TVA has elected to implement this category by the following projects:
  - Non-Road Transportation and Infrastructure Applications
  - Medium-Duty Plug-In Electric Vehicle Applications & Charging Infrastructure
- Clean/Renewable Energy Projects (invest \$40 million):
  - EV and Plug-in Hybrid Electric Vehicle Solar Charging Stations
  - Waste Heat Recovery
  - Solar Photovoltaic Installations
  - Methane Gas Capture & Generation
    - Will be accomplished through purchased power agreements



# TVA Environmental Projects

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### Mitigations Projects Funded

- Land and Ecological Restoration & Biological Carbon Sequestration (\$2 million in required payments):
  - One time payment of \$1 million/each to US Forest Service and National Parks Conservation Association
  - Both entities paid in September 2011
- State Projects (\$60 million). Each state is paid 1/5<sup>th</sup> of its allocation each calendar year starting in 2011:
  - \$26.4 million to TN over five years
  - \$11.2 million/each to AL, KY, NC over five years

### Importance of Project Tracking/Reporting

- All parties involved in the projects must have an effective process for tracking implementation progress, budget expenditures, and emission reductions/avoidance realized. Specifically, TVA and all parties involved in any part of the Environmental Mitigation projects must coordinate to ensure project reporting is ongoing and submitted to EPA by various deadlines.

- Beginning 120 days after the EPA approves the project plans and continuing semi-annually thereafter, TVA shall provide EPA with written reports detailing:
  - Activities undertaken and progress of each project
  - An accounting of project dollars spent to date
  - Any greenhouse gas emissions (expressed in CO<sub>2</sub> equivalent), SO<sub>2</sub>, NO<sub>x</sub>, and Hg emission reductions and the methodologies used for these calculations
- Within 60 days following the final expenditure of project dollars for each project, TVA shall submit a report to EPA that documents:
  - The date the project was completed
  - Emission reductions realized or other environmental benefits
  - Project dollars expended by TVA in implementing the project